STRUCTURE AND GOVERNANCE
INNOVATION AND COLLABORATION WORK GROUP
July 28, 2014
MEETING NOTES

Present: Don Soltman, Bill Brulotte, Katie Graupman

Not Present: Dr. Cori Mantle Bromley, Chair; Senator Roy Lacey

Others present: Roger Brown, Office of the Governor; Alex Macdonald, State Department of Education.

The committee invited Roger Brown to update them on the status of broadband and wireless in Idaho. Mr. Brown thanked the committee for the opportunity, and said that the committee's recommendations would help steer legislation in the 2015 session.

Mr. Brown said that the original idea of the Idaho Education Network (IEN) was to ensure certainty and capacity to Idaho Schools and agencies without glitches or outages. With support from the J.A. and Kathryn Albertson Foundation, the IEN is now connected in every high school in the state. It also connects several state agencies, as well as libraries.

The IEN now faces two challenges: the legal challenge of whether the original contract was properly awarded; and the "whistle-blower" effect of that lawsuit which has now served to halt e-rate funds to pay for the IEN. The two issues are now tied. The Governor believes that the service is valuable to provide internet to schools and that is worth the percentage needed in the budget. The Legislature is not so sure. Broadband service is very inexpensive in some areas and very expensive in others. Without the certainty of federal funding or judicial certainty, emphasis will be placed on maintaining the presence of the service. The Governor does not believe anyone is served by breaking up the service.

The IEN costs $13-15 million per year, which will increase as usage increases. The Legislature is impatient and could take a step back. They have granted supplemental funding through February 2015. If the e-rate funds are not released by that time and the Legislature does not extend funding, it would trigger an end of services for schools, agencies and libraries. Some districts have money to continue; others do not. If districts were to apply for e-rate funds themselves, they would face a short window and a complicated process to qualify. Service could be interrupted.

Movement away from the IEN seems to come from smaller districts, such as St. Maries, which was the last district hooked up to the IEN, but who continues to buy service separately, resulting in double-funding.

The nature of the urban-rural divide requires a universal statewide system to ensure a consistent and uniform system of education in Idaho. Loss of the IEN will severely impact

rural districts. The Governor views the IEN as a necessary tool in providing uniformity of opportunity. Mr. Brown hoped that this committee would endorse the IEN.

Mr. Brown reported on the status of the e-rate delay. The State is exploring Federal Commerce Commission counsel, while still hoping to receive a favorable ruling from Universal Service Administrative Company (USAC) who administers the e-rate funds. If USAC rules that Idaho is using the funds correctly, then the funds will be restored. If USAC rules unfavorably, then Idaho will appeal, which could take five years, and this committee's support for the IEN to the legislature will be meaningful. The IEN is in all high schools and some districts have extended it to junior high schools. Charter schools are included. Without e-rate funding, the continuation of the IEN is uncertain. Furthermore, an FCC study recently determined that Netflix accounts for 35% of usage each evening, which is why a dedicated service like the IEN is important.

The committee welcomed Alex Macdonald to talk about the technology pilot projects in terms of vision for the 21st Century Classroom. Mr. Macdonald provided a report (attached) entitled Next Generation Learning Environment, a compilation of vision from schools which were awarded technology grants in 2013. Many similarities exist in the language used in the schools' vision statement:

- Individualized education
- Teachers as facilitators
- Strong bandwidth
- Cross-curricular study
- Instantaneous information
- Diverse learning opportunities.
- Allows students to advance at own rate
- Peer to peer collaboration

Mr. Macdonald confirmed that the $13 million to provide broadband through the IEN does not include wireless, which currently costs $21 per student under a State contract. Districts can purchase wireless on their own as long as it meets state standards.

All of the participating schools hired instructional coaches, which Mr. Macdonald characterized as "game-changers" to provide professional development and focus progress. In some schools, students provided Level 1 technical support both for students and teachers. In McCall, students wrote the entire proposal and taught their teachers how they wanted to learn.

Professional development was handled differently among schools, some with late start, every other Friday or voluntarily after school. Schools need a collaboration platform, a learning management system for student data. Mr. Macdonald said that Google Classroom is a platform that works and is available at no cost. It will be launched in the fall, and districts are planning to transition.

Mr. Macdonald said that the 21st Century classroom, more accurately known as the Next Generation Classroom, will be described, not by what it looks like, but by what it DOES. It is bigger than individual connectivity, but is more related to outcomes – what do I get out of it?

The committee reviewed feedback from the morning's presentation to the Joint Committee, and attached fiscal impact to their recommendations:

#8   Statewide collaboration system
        Fiscal Impact: Wait for OPE report

#10   Technology Devices
                Fiscal Impact: Support continued statewide broadband system (IEN)
                        • $13 million + $2 million growth, plus $21/student wireless
                        • Discontinue technology pilot program; use funds for district-wide technology budget

        Technology experts:
                Fiscal Impact: Tom Taggart working on multiplier for IT personnel;
                        • One full-time person per building $40,000 with benefits

        Keyboard skills:
                Fiscal Impact: None directly; purchased by districts with technology funds

#17   Site-based collaboration and job-embedded professional development
                Fiscal Impact: Increase school year by 3 days; easy to calculate

#18   Training of School Boards
                Fiscal Impact: None for this committee.

Next Meeting: At the call of the chair.

Next Generation Learning Environment

Idaho Core Standards:

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new.

The need to conduct research and to produce and consume media is embedded into every aspect of today's curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section.

Students need to be "self-directed learners, effectively seeking out and using resources to assist them, including teachers, peers, and print and digital reference materials.

Students who are college and career ready employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use. They tailor their searches online to acquire useful information efficiently, and they integrate what they learn using technology with what they learn offline. They are familiar with the strengths and limitations of various technological tools and mediums and can select and use those best suited to their communication goals.

New technologies have broadened and expanded the role that speaking and listening play in acquiring and sharing knowledge and have tightened their link to other forms of communication. The Internet has accelerated the speed at which connections between speaking, listening, reading, and writing can be made, requiring that students be ready to use these modalities nearly simultaneously. Technology itself is changing quickly, creating a new urgency for students to be adaptable in response to change.

When making mathematical models, [students] know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Technology Pilot Vision:

Our vision for Beutler Middle School (BMS) includes **energetic, learner-centered classrooms. Teaching is fluid** and accommodates individual needs and equalizes instruction for all students. Ongoing comprehensive **data is collected and analyzed** to drive student learning. Teachers are highly skilled in Common Core, learning strategies, and the use of technology to support learning.

The Next Generation Learner will **utilize technologies to meet life-long learning challenges** of the 21st century. An effective learning community designed for the Next Generation Learner (NxGL) should incorporate the following:

- **Personalized learning** based on data-driven goals for instruction;
- Comprehensive **systems of learning supports** to ensure the success of all students;
- Outstanding knowledge and skills required for success in a **globalized working and learning** environment;
- Performance-based learning, which requires students to **demonstrate mastery based on high, clear, and commonly-shared expectations;**
- Constructive learning **experiences through both the geographic and the Internet-connected** community; and
- Authentic student voice, which is the deep engagement of students in directing and **owning their individual learning.**

Discovery Elementary is a school intent on transforming our learning environment to meet the needs of 21St century learners by **providing student-centered, authentic, individualized learning** opportunities where students **create** content through the use of digital tools--with a focus on **collaborative** learning and critical **thinking**. Our classrooms will be **student-centered**, mobile and flexible learning environments focused on academic achievement and social interaction. We are dedicated to changing our instructional practices to maximize student growth. The KMS leadership team realized that the student-centered, collaborative, creative, and **rigorous learning** environment that they had long envisioned could be achieved through 1:1 implementation of CBs by providing immediate access for all students to 21st century **online applications and resources**.

The McCall-Donnelly High School learning community defines "A Next Generation Learning Environment" as a school where:

- **students are put at the center** of the learning process and are engaged in
- **constructive** learning experiences,
- lessons are **vigorous and relevant** to the real world and reflect the knowledge and
- skills needed for success in a **post-secondary education** or career as outlined in the CCSS,
- technology enhances and **maximizes authentic** learning opportunities for
- students to ensure they have **access** to the necessary tools and knowledge to be successful in the 21st century, and
- instructional practices reflect **the shifting role of the teacher to facilitator.**

MHS is developing a Next Generation Learning Environment (NGLE) which encompasses the **integration of social media, peer-to-peer interaction, non-linear learning, and emerging technologies**. The NGLE fosters the four components of the 21st century learner: **communication, critical thinking, collaboration, and creativity.**

We envision our teachers using technology to **engage and broaden student perspectives** in learning, to complete **timely assessments**, and to **monitor each student's progress**. For example, students could be assigned a writing topic that prompts them to visit a website, watch a news story, and write a response. Students could then combine and **analyze their responses** in a single GoogleDocs document before **sharing** it with the teacher.

A Next Generation Learning Environment (NGLE) will give educators a chance to provide a new learning experience for students by using technology to **collaborate, interact, engage, and increase their depth of knowledge**.

TLP relies on four key strategies:

- technological training of highly qualified, certified staff and creation of **Open Educational Resources (OER)**
- **access to high-quality** digital content with real-time feedback
- scaffolding key concepts for students with **individualized instruction**
- building opportunities for students and parents to **easily access key learning concepts at home** or at school during extended hours

Their **student-centered** inquiries will combine **discipline knowledge and research techniques** to **solve problems, pursue new knowledge, build, and create** by using the latest web 2.0 tools and open educational resources to **research and present** their findings with and to the community and the world. They will not only use open educational resources, they will be **contributors**. Inquiry is a research proven pedagogy that increases student **engagemen**t, resulting in higher test scores and **student involvement**.

Mullan Trail is poised to become one of Idaho's premier Next Generation Learning Environments by providing **individualized instruction** based on **real time data,** utilizing a variety of instructional methods and creating a **passion for inquiry** that promotes anytime, anywhere learning. Students will be provided with the necessary technology to access Google Apps that **personalize learning** in the areas of reading and math. Students will also be

expected to **collaborate and create** products that **showcase their learning** each quarter. Teachers will have access to data that shows student mastery of skills in real time so they **can adjust instruction and reteach groups** of students who need further instruction. Students who have mastered grade level standards will be **challenged to** apply their skills in different contexts that appeal to **their interests**.

We believe this can happen through the advancement of a technology enhanced learning environment to assist with developing **creativity and innovation, collaboration and communication skills**, **problem-solving and critical-thinking skills.** Mountain View Middle School recognizes that to be able to provide an effective learning community we must **focus on the "Next Generation Learner."**

The Next Generation Learning Environment at Meridian Technical Charter High School (MTCHS) is where technology is used to help students **advance with their educational and life goals**. This includes obtaining a high school diploma in four years, post- secondary education, job and skill training, and **soft skills needed to obtain and keep employment** when the time comes. Emotional regulation and executive functioning play a big role in all of this.

We believe an important characteristic of NxGL is a classroom environment moving from teacher-centered to **student-centered learning**. Our goal is to provide deep student engagement that comes from **students directing their own learning experiences** and students teaching students.

Lapwai Middle-High School proposes to accomplish a clear and shared focus on utilizing technology to ensure our learners become **responsible digital citizens in a student-centered, project-based, online learning environment**. We believe our technology integration project will advance pedagogy and accelerate school improvement by **increasing student engagement** with structures for professional development and sustainability.

The Next Generation Learning Environment (NGLE) seeks to reinvent education by exploring new models, technologies, and pathways to success. Innovation is key as teachers team to **equip their students for the challenges of the 21st century workplace**. An integral piece of this innovation is a learning environment where students can utilize different learning modes and have **access to technology at their fingertips**. According to the Horizon Report (2012), "Technology continues to profoundly affect the way we work, collaborate, communicate, and succeed". This environment must include advanced learning opportunities, instant access to educational content delivery, and creation tools. Idaho Arts Charter School (IACS) believes that creating diverse learning opportunities requires a technology rich environment.   When students do not have access to technology it results in an inconsistent learning environment where teachers hope the technology is available when they need it. Implementing a technology rich model will create opportunities that will result in school improvement by enabling **students to have instant, consistent tools to be successful.**

We, the educators from Fruitland Elementary, believe in order to be an effective learning community for the Next Generation student, educators will integrate the following:

- **Differentiated instruction** based on data-driven goals for our instruction.
- Authentic learning opportunities through **technology as a tool**.
- Learning environments that include student-to-student, school-to-school, and mastery-based learning via **technology apps as a navigator**.
- Useful artifacts **created by the student** to demonstrate measurable growth.
- Implemented learning strategies and **applications found in the "real world."**

Forrest M. Bird Charter School (FBCS) recognizes Next Generation Learning (NGL) and Substitution, Argumentation, Modification, and Redefinition (SAMR) models as the standard for creating a **personalized, rigorous learning environment** through the use of technology. NGL allows increased **world-class knowledge and skills, data and assessment supports, increased project based learning time, and increased possibilities for dual credit opportunities for all students**.

Centennial Elementary has launched STREAM, the path for science, technology, research, engineering, arts, and mathematics that will leapfrog students ahead as 21st century learners looking forward to their bold new futures. Students will be immersed into "hands dirty" and "feet wet" activities. **Inquiry based experiences and real world problem solving skills** will be developed by educators in conjunction with regional colleges, universities, and technology **industries** to ensure each child with contemporary experiences. **Students will become efficient global thinkers.** Moving classroom activities into our extended community will allow our e**ducators to become facilitators and students will take ownership of their individual education plans.** All of the new technology opportunities will focus on providing opportunities unavailable without technology or greatly enhancing current capabilities through technology usage.

The next step in completing a Next Generation Learning Environment is to fully **transition from passive, teacher-led technology to a hands-on active learning approach** by providing the opportunity for a 1:1 student device ratio.

Next Generation Learning Environment, a Snapshot

> *During lunch, Megan reads her English class discussion " Hamlet – Still Relevant?" on her Chromebook. A classmate's post cites an Atlantic article, noting that deposed Arab Spring leaders had a sense of destiny that kept them in denial until the end. He related this to Hamlet's consternation that the grave of a king could be desecrated as if he were a mere commoner. "Wish I had a sense of destiny," Megan thinks on her way to class. Later that afternoon, she heads to the computer lab to do a physics simulation during advisory. She knew a computer was available through a Google calendar. Her teacher has posted a lab guide into her Google Drive using Hapara Teacher Dashboard. In the simulation, Megan launches a 3-stage rocket and describes how constant force and sudden loss of mass (as a spent stage is jettisoned) produces a jump in acceleration, including a data table and graph. "This also gives me an example of a step-wise function for precalc," she thinks as she copies the formula and graph into a presentation she will project in class tomorrow.*

> *At home, Megan notices that her step-dad has repaired the flat tire on her bicycle. They have such an easy relationship now, unlike the conflicted loyalties she felt when he first entered her life. "That's it!" she thinks. "I remember the feeling I had while reading the passage in Hamlet where he is questioning his loyalty to his stepfather." That night Megan crawls into bed with her Chromebook and reads the passage again. As she falls asleep she is formulating her contribution to the English class discussion, which she will post before breakfast in the morning.*